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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/604,131

06/27/2003

Chi-Yu Ho

10461-US-PA

1130

31561

7590

10/05/2006

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE

7 FLOOR-1, NO. 100

ROOSEVELT ROAD, SECTION 2

TAIPEI, 100

TAIWAN

EXAMINER

HOLTON, STEVEN E

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/604,131

Applicant(s)

HO ET AL.

Examiner

Steven E. Holton

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is made in response to applicant's amendment filed on 9/6/2006. Claims 1 and 4-11 are currently pending in the application. An action follows below:

2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dutta (USPgPub: 2002/0163524) in view of Adelson et al. (USPN: 3530312), hereinafter Adelson, and further in view of Thielen (USPgPub: 2004/0117442).

Regarding claim 1, Dutta discloses a handheld electronic device with "a display (Fig. 1, element 101; paragraph 23), comprising a backlight (paragraph 23; The examiner notes that Dutta does not show the backlight, but a backlight is part of the device, otherwise the backlight switch wouldn't be necessary)." However, Dutta does not disclose "a metal slice, located on the surface of the hand-held apparatus, wherein when a user touches the metal slice, the metal slice generates an AC signal; and

A control circuit, coupled to the metal slice, used to convert the AC signal into a DC pulse signal so as to control the hand-held apparatus based on the DC pulse signal.”

Adelson discloses a touch responsive circuit that functions using “an antenna element comprising a body portion of the electrically conductive material which can assume many shapes, forms a touch responsive element (col. 3, lines 6-9; Fig. 1, element 5)”. The Examiner notes that the antenna could be a metal slice or panel on the surface of a device. Further, when the antenna is touched; an AC is coupled through the human body to the rest of the circuit for use as a switch signal (col. 4, lines 25-65).

At the time of invention it would have been obvious to one skilled in the art to utilize touch switches of Adelson as a type of switch used for controlling the hand-held device of Dutta. The motivation for doing so would have been “to provide a construction of electronic switch which has no moving parts, and an indefinitely long operating lifetime... the switch has a switching time in the microsecond range (Adelson, col. 2, lines 32-38).” The Examiner notes that the output of the Adelson circuit is shown as being a both half-rectified and fully-rectified (Figs. 3 and 4), but Adelson does not discussed changing the signals to DC pulse signals. However, it would have been obvious to one skilled in the art that a microprocessor operates with DC signal inputs and that conversion of the AC signal output by Adelson’s switch to a DC signal for use with a microprocessor would be possible.

However, neither Adelson nor Dutta disclose "wherein when the metal slice is touched by a user, the display is turned on and the on state is maintained until the metal slice is touched again."

Thielen discloses a handheld digital content player with a display device (Fig. 1, element 2). Thielen further discusses the handheld device utilizing a momentary on/off switch for turning the device on and off (paragraph 142). As described by Thielen by pressing the momentary switch for more than two seconds switches the device from a power on to power off state or the opposite. Thielen does not expressly state that the display is turned on and off, but that the entire device is transitioned between power on, sleep, and power off states based on the duration of the touch to the momentary switch. The Examiner assumes that powering the entire player on and off would also include turning the display on and off.

At the time of invention it would have been obvious to one skilled in the art to combine the teachings of Dutta, Adelson and Thielen. Using the power on/off system of Thielen a portable device could be turned on and off using the momentary switch described by Adelson and then stay in an on or off state until the momentary switch was touched again. It would be a matter of design choice to use the momentary on/off switch design described by Thielen or a different type of switching mechanism. Thus, it would have been obvious to one skilled in the art to combine the teachings of Dutta, Adelson and Thielen to produce the device as described in claim 1.

Regarding claims 4 and 5, Dutta discloses a physical button on the handheld device for turning the backlight on and off (Fig. 1, element 104; paragraph 23). Thus, it

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would have been obvious for one skilled in the art to use a touch sensitive switch such as Adelson's as the backlight control switch as disclosed by Dutta.

Regarding claims 6 and 7, the Examiner takes Official Notice, that it is well known in the art to provide a keyboard lock switch on handheld and portable devices so that when unauthorized users are not allowed to enter text on the device or that keyboard input will be ignored when the device is not being operated and is being carried. Such a locking mechanism for the keyboard of a handheld device is done using a switch on the handheld device. Thus, it would have been obvious for one skilled in the art to use the switch of Adelson as a switch to operate the locking and unlocking of the keyboard of a handheld device.

Regarding claim 8, Adelson discloses a rectifier used to rectify the AC signal and output a rectified signal (Figs. 4 and 5, element 13 and element 8; col. 3, lines 56-71 and col. 4, line 67-col. 5, line 9). Adelson does not expressly disclose an amplifier, filter or microprocessor, but the amplification and filtering of an AC signal for use with a microprocessor is known in the art and would be an obvious choice by one skilled in the art to increase the level of the sensed signal and to remove noise from the signal for better operation of the overall circuit. Dutta discloses a microprocessor that is used to operate the handheld device (Fig. 2, element 201; paragraph 24).

Regarding claims 9-11, Dutta discloses a backlight control for a handheld personal digital assistant. The Examiner states that mobile phones, personal digital assistants and handheld computers are analogous within the art and that it would be obvious to one skilled in the art that the backlight control functions and other controls

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provided by Dutta could be interchangeably provided to a mobile phone or hand-held computer.

Response to Arguments

4. Applicant's arguments, see pages 6-8, filed 9/6/2006, with respect to the rejection(s) of claim(s) 1 and 4-11 under USC 35 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the newly found prior art.

The Examiner finds the arguments that the handheld device described by the previously used Metroka reference did not disclose the use of a display within the handheld device. The newly provided rejection utilizing Thielen is intended to show that the use of a momentary switch as an on/off switch is previous known in the electronic arts and considered for use with a handheld device with a display and other built-in functions. Thielen does not expressly state that the display is turned on and off, but that the entire device, which the Examiner assumes would include the display, is transitioned between power on, sleep, and power off states based on the duration of the touch to the momentary switch. Any type of momentary switch could be used, including a momentary switch as described by Adelson. Other types of devices also use momentary power switches for turning on and off based on the most recent contact with the switch.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bilich et al. (USPN: 5764547) discloses prior art of large display monitors using a momentary power switch for turning the monitor on and off (col. 1, lines 27-36).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven E. Holton whose telephone number is (571) 272-7903. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven E. Holton
Division 2629
September 19, 2006

AMR A. AWAD
SUPERVISORY PATENT EXAMINER
